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| 10/599,909 | 10/13/2006 | Estelle Bonnet | 1759.236 | 6494 |
| 23405 7590 09/14/2009 HESLIN ROTHENBERG FARLEY & MESTI PC 5 COLUMBIA CIRCLE ALBANY, NY 12203 | | | | |
| EXAMINER | | | | |
| CHEN, CATHERYNE | | | | |
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/599,909

Applicant(s)

BONNET ET AL.

Examiner

CATHERYNE CHEN

Art Unit

1655

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 May 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) 1-14 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 15-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SE/US)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Currently, Claims 1-20 are pending. Claims 15-20 are examined on the merits.

The declarations of Estelle Bonnet, Virginie Charton, Jerome Grousseau, Alain Guchon, Paula Lennon, Caroline Schutz, Vincent Hubiche, filed May 23, 2009 have been considered.

Election/Restrictions

Applicant's election without traverse of Group II (Claim 15-20), species cappaprenol 12 and palmitic acid, in the reply filed on April 9, 2008 is acknowledged.

Claims 1-14 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected group, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on April 9, 2008.

Response to Arguments

Applicant's arguments, filed May 23, 2009, with respect to 35 USC 102 and 103 rejections have been fully considered and are persuasive. The rejections of Claims 15-20 have been withdrawn.

The declarations of Estelle Bonnet, Virginie Charton, Jerome Grousson, Alain Guchon, Paula Lennon, Caroline Schutz, Vincent Hubiche, filed May 23, 2009 have been considered and are persuasive.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 15-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Germano et al. (2002, J Agric Food Chem, 5: 1168-1171) as evidenced by Akgul et al. (1999, Grasa y Aceites, 50: 49-52) and Al-Said et al. (1988, Pharmazie, 43: 640-641) in view of Cyr (WO 02/069992 A1), Licence et al. (2003, Green Chemistry, 5: 99-104).

Germano et al. teaches caper is the floral bud of *Capparis spinosa* (Introduction, left column, paragraph 2). *Capparis spinosa* have alkaloids, lipids, flavonoids, and glucosinolates, which have antioxidant activity after removal of glucosinolates (Abstract).

Capparis spinosa intrinsically contain palmitic fatty acid (see Introduction, right column, Akgul et al., 1999, Grasa y Aceites, 50: 49-52). Cappaprenols 12 is intrinsically present in Capparis spinosa (see Abstract, Al-Said et al., 1988, Pharmazie, 43: 640-641).

However, it does not teach supercritical fluid extraction and 14.8-42 mg cappaprenols in 100 gram of fat.

Cyr teaches Capparis spinosa (page 21, line 12) can be extracted by liquid-liquid supercritical condition (page 3, lines 28-29).

Licence et al. teaches supercritical carbon dioxide has been widely used for extraction processes, which replaces environmentally less acceptable solvents (page 99, Introduction, right column, paragraph 1).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to use supercritical fluid extraction because the extraction method has been used to extract Capparis spinosa. One would have been motivated to make composition with supercritical fluid extraction for the expected benefit of obtaining a composition extracted from Capparis spinosa with is environmentally friendly and widely accepted for use in extractions. Absent evidence to the contrary, there would have been a reasonable expectation of success in making the claimed invention from the combined teachings of the cited references.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to use extraction process with supercritical carbon dioxide because supercritical carbon dioxide extraction is environmentally safer to use. One would have been motivated to make supercritical fluid extraction with supercritical carbon dioxide for

the expected benefit of extracting plants. Absent evidence to the contrary, there would have been a reasonable expectation of success in making the claimed invention from the combined teachings of the cited references.

As for concentration of cappaprenol, Al-Said et al. teaches cappaprenol-12 isolated and tested on rat paws (Abstract), where polyprenols isolated were tested at concentrations of 100, 200, 500 mg/kg (page 640, right column). The cappaprenols are colorless oil (page 641, 3.3.1).

The references do not specifically teach adding the ingredients in the amounts claimed by applicant. However, the references do teach the composition for antioxidant. Al-Said et al. teaches cappaprenol-12 isolated and tested on rat paws for anti-inflammatory effects (Abstract), where polyprenols cappaprenol-12 isolated were tested at concentrations of 100, 200, 500 mg/kg (page 640, right column). The amount of a specific ingredient in a composition that is used for a particular purpose (the composition itself or that particular ingredient) is clearly a result effective parameter that a person of ordinary skill in the art would routinely optimize. "[W]here the general conditions of a claim are disclosed in the prior art, it is not inventive to discover the optimum or workable ranges by routine experimentation." In re Aller, 220 F.2d 454, 456, 105 USPQ 233, 235 (CCPA 1955). Thus, optimization of general conditions is a routine practice that would be obvious for a person of ordinary skill in the art to employ. It would have been customary for an artisan of ordinary skill to determine the optimal amount of each ingredient to add in order to best achieve the desired results. Thus, absent some demonstration of unexpected results from the claimed parameters, this

optimization of ingredient amount would have been obvious at the time of applicant's invention.

MPEP 2144.05 Obviousness of Ranges

II. OPTIMIZATION OF RANGES

A. Optimization Within Prior Art Conditions or Through Routine Experimentation

Generally, differences in concentration or temperature will not support the patentability of subject matter encompassed by the prior art unless there is evidence indicating such concentration or temperature is critical. "[W]here the general conditions of a claim are disclosed in the prior art, it is not inventive to discover the optimum or workable ranges by routine experimentation." In re Aller, 220 F.2d 454, 456, 105 USPQ 233, 235 (CCPA 1955) (Claimed process which was performed at a temperature between 40°C and 80°C and an acid concentration between 25% and 70% was held to be prima facie obvious over a reference process which differed from the claims only in that the reference process was performed at a temperature of 100°C and an acid concentration of 10%.); see also Peterson, 315 F.3d at 1330, 65 USPQ2d at 1382 ("The normal desire of scientists or artisans to improve upon what is already generally known provides the motivation to determine where in a disclosed set of percentage ranges is the optimum combination of percentages."); In re Hoeschele, 406 F.2d 1403, 160 USPQ 809 (CCPA 1969) (Claimed elastomeric polyurethanes which fell within the broad scope of the references were held to be unpatentable thereover because, among other reasons, there was no evidence of the criticality of the claimed ranges of molecular weight or molar proportions.). For more recent cases applying this principle, see Merck & Co. Inc. v. Biocraft Laboratories Inc., 874 F.2d 804, 10 USPQ2d 1843 (Fed. Cir.), cert. denied, 493 U.S. 975 (1989); In re Kulling, 897 F.2d 1147, 14 USPQ2d 1056 (Fed. Cir. 1990); and In re Geisler, 116 F.3d 1465, 43 USPQ2d 1362 (Fed. Cir. 1997).

Thus, through routine experimentation, "[t]he normal desire of scientists or artisans to improve upon what is already generally known provides the motivation to determine where in a disclosed set of percentage ranges is the optimum combination of percentages." In other words, the claimed amounts

were well within the purview of the ordinary artisan at the time the invention was made in an effort to optimize the desired results.

Claims 15-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Germano et al. (2002, J Agric Food Chem, 5: 1168-1171), Akgul et al. (1999, Grasa y Aceites, 50: 49-52), Al-Said et al. (1988, Pharmazie, 43: 640-641), Cyr (WO 02/069992 A1), Licence et al. (2003, Green Chemistry, 5: 99-104) as applied to claims 15-18 above, and further in view of Kawamura (EP 359196 A2).

The teachings of Germano et al., Akgul et al., Al-Said et al., Cyr, Licence et al. are set forth above and applied as before.

The combination of Germano et al., Akgul et al., Al-Said et al., Cyr, Licence et al. do not specifically teach the octyldodecyl myristate, and cosmetically acceptable carrier.

Kawamura teaches formulation for cosmetic use for skin care as a cream with the adjuvant octyl dodecyl myristate, which can be added with antioxidant (page 2, lines 39-40).

Al-Sid teaches Capparis spinosa are suitable for use in topical formulations, where capparenol-12 is used on rat paw, which is skin (see Abstract).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to use octyl dodecyl myristate are used with antioxidants as skin cream because antioxidants from Capparis spinosa are suitable for use in topical formulations (see Germano, Abstract and Al-Said, Abstract). One would have been motivated to make an antioxidant formulation with Capparis spinosa extract for the

expected benefit of making a formulation for skin. Absent evidence to the contrary, there would have been a reasonable expectation of success in making the claimed invention from the combined teachings of the cited references.

Conclusion

No claim is allowed.

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Catheryne Chen whose telephone number is 571-272-9947. The examiner can normally be reached on Monday to Friday, 9-5 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Terry McKelvey can be reached on 571-272-0775. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Catheryne Chen
Examiner Art Unit 1655

/Michael V. Meller/

Primary Examiner, Art Unit 1655